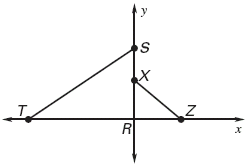
**Homework 46H** Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Similar Triangles – AA** Period:\_\_\_\_Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Failure to show all work and write in complete sentences will result in LaSalle!**

|  |  |  |
| --- | --- | --- |
| 1.  Explanation: | 2.    Explanation: | 3.    Explanation: |
| 4.    Explanation: | 5.    Explanation: | 6.    Explanation: |
| 7. | | |

**In problems 8-9, use the diagram at the below. Find the coordinates of point Z so that Δ*RST* ~ Δ*RXZ*.**



|  |  |
| --- | --- |
| 8. *R*(0, 0), *S*(0, 4), *T*(–8, 0), *X*(0, 2), *Z*(*x*, *y*) | 9. (0, 0), *S*(0, 6), *T*(–6, 0), *X*(0, 2), *Z*(*x*, *y*) |
| 10. | |
| 11. In order to estimate the height *h* of a flag pole, a 5 foot tall male student stands so that the tip of his shadow coincides with the tip of the flag pole’s shadow. This scenario results in two similar triangles as shown in the diagram. What is the height *h* (in feet) of the flag pole? | |
| 12. A circle has a circumference of 10π centimeters. What is the area of that circle, in terms of π? | 13. Find the measure of the exterior angle shown. |